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RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/501,611A
Source: 1FWP
Date Processed by STIC: 5/12/06

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RAW SEQUENCE LISTING

DATE: 07/14/2006

PATENT APPLICATION: US/10/501,611A

TIME: 14:48:49

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Output Set: N:\CRF4\07142006\J501611A.raw

1 <110> APPLICANT: Pavan, William J.
 2 Loftus, Stacie K.
 3 The Government of the United States of America
 4 as represented by The Secretary of the
 5 Department of Health and Human Services
 6 <120> TITLE OF INVENTION: Alteration of RAB38 Function to Modulate Mammalian
 7 Pigmentation
 8 <130> FILE REFERENCE: 015280-148100US
 C--> 9 <140> **CURRENT APPLICATION NUMBER: US/10/501,611A**
 10 <141> CURRENT FILING DATE: 2004-07-14
 11 <150> PRIOR APPLICATION NUMBER: US 60/349,929
 12 <151> PRIOR FILING DATE: 2002-01-18
 13 <150> PRIOR APPLICATION NUMBER: WO PCT/US03/01622
 14 <151> PRIOR FILING DATE: 2003-01-17
 15 <160> NUMBER OF SEQ ID NOS: 28
 16 <170> SOFTWARE: PatentIn Ver. 2.1
 18 <210> SEQ ID NO: 1
 19 <211> LENGTH: 8
 20 <212> TYPE: DNA
 21 <213> ORGANISM: Mus musculus
 22 <220> FEATURE:
 23 <223> OTHER INFORMATION: Rab38 sequence of wildtype allele in C57Bl6/J +/+
 24 DNA
 25 <400> SEQUENCE: 1
 26 ctgggtgt 8
 28 <210> SEQ ID NO: 2
 29 <211> LENGTH: 8
 30 <212> TYPE: DNA
 31 <213> ORGANISM: Mus musculus
 32 <220> FEATURE:
 33 <223> OTHER INFORMATION: Rab38 sequence of chocolate (cht) mutant allele in
 34 c57Bl6/J Rab38cht/+ DNA
 35 <400> SEQUENCE: 2
 36 ctggktgt 8
 38 <210> SEQ ID NO: 3
 39 <211> LENGTH: 34
 40 <212> TYPE: PRT
 41 <213> ORGANISM: Homo sapiens
 42 <220> FEATURE:
 43 <223> OTHER INFORMATION: human RAB38 highly conserved N-terminal region
 44 <400> SEQUENCE: 3
 45 Met Gln Ala Pro His Lys Glu His Leu Tyr Lys Leu Leu Val Ile Gly
 46 1 5 10 15

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61                20                25                30
62      Asn Phe
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66 <212> TYPE: PRT
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86      Gln Asn Phe Asp Tyr Met Phe Lys Ile Leu Ile Ile Gly Asn Ser Ser
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94 <213> ORGANISM: Homo sapiens
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100      Lys Ile Cys Gln Phe Lys Leu Val Leu Leu Gly Glu Ser Ala Val Gly
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108 <213> ORGANISM: Homo sapiens
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115              20              25
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121 <220> FEATURE:
122 <223> OTHER INFORMATION: Rab38 cDNA
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126      agctgctggt gatcggcgac ctgggtgtgg gcaagaccag cattatcaag cgctatgtgc 180
127      accaaaactt ctctctgcac taccgggcca ccattgggtg ggacttcgcy ctgaagggtc 240
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129      gatttggaac catgacaaga gtttattacc gggagctat gggggcattt attgtttttg 360
130      atgtcaccag accagccaca tttgaagccg tggcaaagt gaaaaatgat ttggactcaa 420
131      agttaacgct ccctaattgt aagccagtgt cagtggttct gttggccaac aaatgtgacc 480
132      aagggaagga tgtgcttatg aacaatggac tcaagatgga ccagttctgc aaggagcatg 540
133      gcttcgtagg atggtttgaa acatcagcca aggaaaacat aaacattgat gaagcctcaa 600
134      gatgcctggt caagcacata cttgcaaatg agtgtgacct cctagagtct atagaaccgg 660
135      acattgtgaa gcccacatct acatcgccca aggttgtcag ctgctctggc tgtgccaat 720
136      cctagaaggc tcctctgctg gcatatgaca gacagaaccc gtggccctca tgaatcgtgc 780
137      ttcagttttt ctttattacc attttgggta agcgtcagga tagggaagca catgtgacaa 840
138      gccaaagata catgactgta tggttcctgt caaagaggaa cagcaaagt tctttatgtg 900
139      ttttcccacc ccatcagcac agtgtttaca agcttttaaa atattagtct gtcacaatat 960
140      gctgttttat cattgagcaa agccactcag ggacacagac agccctaata tttgttcctt 1020
141      taaatcaaca aaggcttctg gtcttcttga gaaggggaat aacagagcaa ggcagaggtc 1080
142      aagctaagtg tggggatttg tcttgccctg gtgtgtcttt gttcaggtat caatttgctc 1140
143      ccgggtggtc tgataggtct attaaataga aaccattcat ggtagaccta agggttgkct 1200
144      gtgatgtttc tcttcagagt cgtgtgcaca ggcagcctgg gcttttggtg tcacttgctg 1260
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146      ttctttcagc ttcctctgac tcaagctgca ggactcttct gtatgtggaa gatattat 1380
147      atatattttt cacaagtgaa aaataaaaca ttaaaaatgc tgtttccctg tttctgata 1439
149 <210> SEQ ID NO: 10
150 <211> LENGTH: 291
151 <212> TYPE: DNA

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152 <213> ORGANISM: Homo sapiens
153 <220> FEATURE:
154 <223> OTHER INFORMATION: Rab38 exon 1 and surrounding intron sequence
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157      aggctccgca agaccgcgag gcttccagga tgcagacacc tcacaaggag cacctgtaca 120
158      agctgctggt gatcggcgac ctgggtgtgg gcaagaccag cattatcaag cgctatgtgc 180
159      accaaaactt ctcttcgcac taccgggcca ccattgggtg ggacttcgcg ctgaagggtgc 240
160      tccactggga cccagagacg gtggtgcgct tgcagctctg ggacattgct g          291
162 <210> SEQ ID NO: 11
163 <211> LENGTH: 281
164 <212> TYPE: DNA
165 <213> ORGANISM: Homo sapiens
166 <220> FEATURE:
167 <223> OTHER INFORMATION: Rab38 exon 2
168 <400> SEQUENCE: 11
169      gtcaagaaag atttggaaac atgacaagag tttattaccg ggaagctatg ggggcattta 60
170      ttgtttttga tgtcaccaga ccagccacat ttgaagccgt ggcaaagtgg aaaaatgatt 120
171      tggactcaaa gttaacgctc cctaattggt agccagtgtc agtggttctg ttggccaaca 180
172      aatgtgacca agggaaggat gtgcttatga acaatggact caagatggac cagttctgca 240
173      aggagcatgg cttcgtagga tggtttgaaa catcagccaa g          281
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176 <211> LENGTH: 868
177 <212> TYPE: DNA
178 <213> ORGANISM: Homo sapiens
179 <220> FEATURE:
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183      gtgtgacctc ctagagtcta tagaaccgga cattgtgaag ccccatctca catcgcccaa 120
184      gggtgtcagc tgctctggct gtgccaaatc ctagaaggct cctctgctgg catatgacag 180
185      acagaaccgc tggccctcat gaatcgtgct tcagtttttc cttattacca ttttgggtaa 240
186      gcgtcaggat agggaagcac atgtgacaag ccaaagatac atgactgtat ggttcctgtc 300
187      aaagaggaac agcaaattgt ctttatgtgt tttccaccc catcagcaca gtgtttacaa 360
188      gcttttaaaa tattagtctg tcacaatatg ctgtttttatc attgagcaaa gccactcagg 420
189      gacacagaca gccctaatat ttgttccttt aaatcaacaa aggcttcttg tcttcttgag 480
190      aaggggaata acagagcaag gcagaggtea agctaagtgt ggggatttgt cttgccctgg 540
191      tgtgtctttg ttcaggatc aatttgttcc cgggtgggtc gatagggtcta ttaaatagaa 600
192      accattcatg gtagacctaa gggttgkctg tgatgtttct cttcagagtc gtgtgcacag 660
193      gcagcctggg cttttgttgt cacttgctgt gccctgaatg ctggtttaac tgaaaactgt 720
194      atggaaagat ctgctccctg tatgtgcctt tctttcagct tcctctgact caagctgcag 780
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196      taaaaatgct gtttcctgtg ttctgata          868
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200 <212> TYPE: DNA
201 <213> ORGANISM: Artificial Sequence
202 <220> FEATURE:
203 <223> OTHER INFORMATION: Description of Artificial Sequence:synthetic TYRP15'T3F DNA

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209 <212> TYPE: DNA
210 <213> ORGANISM: Artificial Sequence
211 <220> FEATURE:
212 <223> OTHER INFORMATION: Description of Artificial Sequence:synthetic TYRP15'T7R DNA
213 <400> SEQUENCE: 14
214      gcgcgtaata cgactcacta tagggcccag ttgcaaaatt ccagt
216 <210> SEQ ID NO: 15
217 <211> LENGTH: 47
218 <212> TYPE: DNA
219 <213> ORGANISM: Artificial Sequence
220 <220> FEATURE:
221 <223> OTHER INFORMATION: Description of Artificial Sequence:synthetic MLSN R T7 DNA
222 <400> SEQUENCE: 15
223      gcgggtaata cgactcacta tagggggccac aaacatgtcc tacttac
225 <210> SEQ ID NO: 16
226 <211> LENGTH: 44
227 <212> TYPE: DNA
228 <213> ORGANISM: Artificial Sequence
229 <220> FEATURE:
230 <223> OTHER INFORMATION: Description of Artificial Sequence:synthetic MLSN FT3 DNA
231 <400> SEQUENCE: 16
232      gcgcgaatta accctcacta aaggggaagct tccggactct ctac
234 <210> SEQ ID NO: 17
235 <211> LENGTH: 21
236 <212> TYPE: DNA
237 <213> ORGANISM: Artificial Sequence
238 <220> FEATURE:
239 <223> OTHER INFORMATION: Description of Artificial Sequence:PCR
240      amplification primer Rab38 Ex1F
241 <400> SEQUENCE: 17
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244 <210> SEQ ID NO: 18
245 <211> LENGTH: 21
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247 <213> ORGANISM: Artificial Sequence
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252      gaactcctca tggctcactc c
254 <210> SEQ ID NO: 19
255 <211> LENGTH: 26
256 <212> TYPE: DNA
257 <213> ORGANISM: Artificial Sequence
258 <220> FEATURE:

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RAW SEQUENCE LISTING ERROR SUMMARY DATE: 07/14/2006
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Seq#:14; Line(s) 212
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VERIFICATION SUMMARY

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